follow-up of the latter group will further define the role of TMR in the treatment of an increasingly complex cardiac surgical patient.

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REPLY

The letter by Dr. Allen and colleagues raises a number of important issues. First, they point out that the operative risk factors for transmyocardial revascularization (TMR) identified in our study (1) were similar to those noted in earlier randomized studies. Although we agree that the preoperative risk factors identified were not unique, our study provided confirmatory evidence as to their generalizability in a broader clinical practice setting. More significantly, our national study demonstrated there is still a need to optimize appropriate patient selection for the procedure in contemporary care. Specifically, our study and others clearly demonstrate the risks of TMR in patients with unstable symptoms or recent myocardial infarction (MI). Despite this, we found more than half of TMR cases done in community practice were performed under these conditions. Thus, we believe it valuable to re-emphasize to clinicians these potentially modifiable operative risk factors as a means of encouraging safer use of TMR in community practice in the future.

Dr. Allen and colleague's second point was that we failed to acknowledge the efficacy data for TMR-only. In this regard, we would argue that our study did reference the six randomized clinical trials that support the effectiveness of TMR-only to reduce patient symptoms. The recent abstract on five-year results sited by Allen was not available before our study's publication, and we look forward to seeing this work in press soon.

The third point raised by Dr. Allen and colleagues concerns the role of TMR when used in conjunction with coronary artery bypass graft (TMR + CABG). Our study confirms that this combined procedure has become the dominant role for TMR in contemporary practice. There is less compelling evidence for the efficacy of TMR in this setting, however, than is found in TMR-only. The sole randomized trial of TMR + CABG failed to identify a significant reduction in angina symptoms, but it did report an unexpected reduction in perioperative event rates (2). Our observational study could not confirm these promising findings when comparing operative outcomes among patients with three-vessel disease who got TMR + CABG versus those receiving incomplete revascularization with CABG-only (i.e., one or two grafts only). We agree with Dr. Allen and colleagues that observational treatment comparisons, even when risk-adjusted, may still be challenged by unmeasured patient selection biases (a point we included in our report).

In conclusion, our study emphasized the importance and utility of clinical registry information in providing evidence to further refine the optimal application of technology after its introduction into clinical care. Its main goals were to describe contemporary practice patterns; to improve the safety of the procedure through appropriate patient selection; and to stimulate future research in areas requiring further clarification. We hope we have accomplished these goals and that Dr. Allen and colleagues continue to refine the optimal role for this procedure.

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Medical Malpractice Insurance: A Multifaceted Problem

I laud Dr. DeMaria's efforts in summarizing the issues surrounding the medical malpractice crisis in the November issue of the *Journal* (1). However, I am struck by the lack of courage of state medical licensing boards in not advocating for stronger laws, policies, and procedures to focus on the 5% of physicians responsible for 50% malpractice payouts. Whereas the medical profession should be commended for its patient safety efforts—"an ounce of prevention is worth a pound of cure"—the community of physicians will not achieve credibility with patients unless we begin to review cases of those with the highest rates of payouts. If the medical profession can demonstrate success in this area, then we will have every right to demand that the insurance industry and malpractice lawyers come to the table for broader, more comprehensive, and more collaborative solutions to the medical malpractice crisis.

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